MUSEUM STORIES FOR CHILDREN

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Presented by

The James Nelson and Anna Louise Raymond Foundation
for Public School and Children's Lectures

FIELD MUSEUM OF
NATURAL HISTORY

Series XXIII, Number 1
October 6, 1934

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FIELD MUSEUM OF NATURAL HISTORY
Roosevelt Road and Lake Michigan
CHICAGO

HOW SEEDS TRAVEL

The most conspicuous characteristic of a plant is its inability to move from the spot where it started to grow and to which it is fixed. It is true that a few water plants are floating and may be pushed about by the wind but they do not have powers to move themselves. Their seeds are carried about by winds, water, animals and man.

Seeds are so varied in their shapes and sizes that they travel in many different ways. Look at the tiny orchid seeds, fine and light as powder; the softest breeze sends them on their journey.

Then think of the coconut—just one large seed inside of a big fibrous fruit. It is too heavy to be carried by the wind. However, the coconut palm trees usually grow close to the water and as the huge seeds ripen they often fall into the sea and are carried on the waves. The coconut is well protected for its watery trip with a fibrous, waterproof coat. It may float for months and be carried long distances without destroying the future growth of the seed.

The commonest wayside flower, the dandelion, has a most beautiful and effective way of scattering its seeds. As the flowers wither the stalk elongates and lifts its seeds above the grass where the wind can touch them. Each seed of this fluffy head has a sort of parachute or bunch of silky hairs ready to be lifted and blown away.

The summer wind loosens the winged seeds of such trees as the maple and elm, and sends them in spirals to the ground or carries them in leaps across the yard.

The softest cradle along the roadside holds the milkweed seeds until fall. Then the hard seed case cracks open, the breeze ruffles the silken, elastic hairs attached to each seed and they sail out and are gone.

Even winter does not halt the wind in her task of scattering seeds. It is then that the tumble weed plants break loose from the ground and are blown across the fields, dropping their seeds as they roll.

Some plants have little need for wind or rivers to carry their seeds; they take care of themselves. The squirting cucumber is such a one. As it ripens it becomes so full of water that finally the stem end bursts and out shoots the water, carrying the seeds. The violet seed case splits into three parts and the seeds are thrown

about. Jewel weed or touch-me-not has an appropriate name, since a touch is enough to explode the seed case and hurl the seeds through the air. If an animal brushes against one of these plants in seed time, the seeds are shot out and some are carried away by the animal only to be brushed off in another place. One might say the seeds "steal a ride."

Other seeds find rides by clinging with their small hooks to animals and people. How often in walking through a meadow you find your clothes covered with burdock, cockleburs or stick-tights. An animal may carry burs in its coat for miles before it finally pulls them out.

Squirrels gather nuts and bury them in the ground for winter food. Some nuts are never found again by the squirrels and after a period of time these seeds start to grow. How effectively these animals have scattered and planted many of our nut trees!

Birds have their share in the dispersal of seeds, especially those of berries and fruits. The birds eat the pulp and later drop the seeds. Small seeds often stick to their toes and bills. It is not uncommon to see a bird perched on a fence or branch cleaning its bill and feet. Mistletoe is carried this way. The white berries are food for many birds such as cardinals and thrashers. The seeds are sticky and often cling to the bill until they are brushed away. Mistletoe plants grow on branches of trees where birds have stopped to wipe their bills. Where mistletoe is plentiful, young plants will be seen sprouting even on barbed wire fences.

Millions of seeds are produced each year; many never develop because they fall on unfavorable soil, are destroyed or are crowded out as they start to grow. If all seeds fell to the ground beneath the mother plant, most certainly only a few could grow. However, with the wind, water, animals and man to help, the seeds are scattered a little, sometimes far, and they have a better chance for life.

MIRIAM WOOD, Guide-lecturer

Note: Notice in Hall 29 the wind-carried seeds such as the milkweed and maple. You may see the coconut in all its stages. Many other seeds are exhibited there—look at them and perhaps you can tell how they travel.

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STEPHEN C. SIMMS, Director

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FIELD MUSEUM OF NATURAL HISTORY
Roosevelt Road and Lake Michigan
CHICAGO

AMERICAN SNAKE MYTHS

Long, long ago, in far away lands, snakes were considered the most important of all animals. In some places, they were even worshipped as gods. Then gradually, they lost their high position in the animal kingdom. Some one had foolishly said: "Snakes are dangerous; they kill people." Without stopping to examine the reptiles, people began to accuse them of doing all manner of strange things. Some of the myths began in partial truth, but most of them have absolutely no foundation of truth on which to stand.

Snakes are not cold and slimy. Their skins are dry and their bodies have the temperature of the air about them. Many of them are the best animal friends man can have, for they destroy destructive rodents and grubs. The garden with a Garter Snake in it, or a lawn possessing a Green Grass Snake will be a cleaner, better-looking place for the assistance given by these two friends. Neither has any poison. Should one of them happen to puncture the skin of a person's hand while being held, the injury is far less dangerous than the bite of a mosquito.

Often when hiking through sandy regions, one hears, "Look out! There is a Spreading Viper." The sudden exclamation arises because some one has seen a little, flattened head with a sharp-pointed and upturned snout. When alarmed this snake spreads the bones of its jaws at the rear of the head, flattens out the neck and lifts it from the ground and begins to hiss. Should the enemy come closer, it strikes and lunges with open mouth. It makes a magnificent attempt to frighten, but call its bluff by putting your finger close to the mouth and notice that it makes no attempt to bite. This "Hog Nosed Snake" or "Puff Adder," as it is commonly called, is harmless. Sometimes, finding it can not bluff in the manner just described, it tries another trick. It pretends to be dead. But watch out, at the very first chance, it is off into the bush.

A well-known myth of our land concerns the Hoop Snake. Many are the reports of this reptile rolling along, the tail with its venomous sting in the mouth. According to many, this snake has the power of hurling itself, tail forward like a javelin, at its enemies and inflicting deadly wounds.

This legend is based on the fact that some snakes have tails ending in sharp, horny spikes. But the spines have no poison, nor can they do any harm. No snake has a poisonous or dangerous weapon in its tail. Even the rattles of the Diamond-back's tail are nothing but

buzzers to inform the mate—or humans—that a rattler is near. Each time a new skin is grown, a rattle is added, and this may mean three rattles per year.

Another unjustly accused snake is the Milk Snake. It is really another very valuable friend. Snakes like water and perhaps they do take milk. We know that in certain parts of India the people put milk out for the cobras that may come. But it is not possible for the Milk Snake to rob a cow, nor would a cow permit one even to touch the udders. The reason these snakes are found near the cows is that they are seeking the mice and rats that are usually found in such places as barns and sheds. The great number of mice skeletons found in the stomachs of these snakes prove that they are guardians and not enemies.

One of the most easily explained myths centers about the "Joint Snake" or "Glass Snake." It is accused of joining the pieces of its body together when once they have been cut. Like most lizards—for it is a lizard and not a snake—it has the ability to detach its tail at a certain joint. The muscles then pull together and soon another tail starts to grow. If the enemy happens to be standing near, the owner of the tail is apt to be entirely forgotten in watching the tail snap and squirm and jump. This continues for some time. Meanwhile the lizard quietly disappears. The fact that this reptile has no external legs explains its snake-like form. But the statement that the pieces of the tail will go back together when once they have been severed is entirely false. They cannot.

There is one legend which still remains more or less of a mystery. Frequently one hears reports of mother snakes opening their mouths for the babies to run into when danger is near. Mother snakes do not usually pay much attention to the young ones. Hence very few people believe this myth. Perhaps you may be the scientist who will explain this some day. Plenty of witnesses and motion pictures will either place it among the other legends or add a new fact to the story of the snakes.

MARGARET M. CORNELL, Guide-lecturer

Note: In Hall 18 are many kinds of snakes and lizards.

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STEPHEN C. SIMMS, Director

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FIELD MUSEUM OF
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FIELD MUSEUM OF NATURAL HISTORY
Roosevelt Road and Lake Michigan
CHICAGO

THE STORY OF COFFEE

Twenty-five million sacks of coffee were shipped from Brazil alone in 1931. That represents two-thirds of the world's coffee. It was not always so common and easy to obtain. Many years ago the coffee trees grew wild on the hills of Arabia and Abyssinia and no one knew that the berries could be made into a delicious drink.

The true story as to exactly how, where and when coffee was first discovered will be forever hidden among the mysteries of the East. Legends and fables are numerous in which there is, perhaps, a little truth. The commonest legend is the one of the "wakeful monastery" in Abyssinia. There, it is told, one of the herdsmen complained to the abbot that the goats under his care would not sleep at night but became very frolicsome and even danced about. The goats had been feeding on the red berries of certain small trees. The abbot decided to try the berries himself and found after eating them that he too could not sleep. He ordered some of the berries boiled and the beverage drunk by his monks; this drink kept them awake during the long religious services of the night. According to the story, the news of the "wakeful monastery" spread rapidly and the wonderful berries were sought throughout the kingdom.

The first authentic mention of the coffee tree, its fruit and uses was made by an Arabian physician in the ninth century A.D. The Arabians became so jealous of their new drink that the berries were not allowed to leave the country without first being placed in boiling water to destroy their powers of further growth. Therefore, it was years before the tree was cultivated outside of Arabia and Abyssinia. Probably some of the pilgrims managed to carry a few of the good beans to India where, some time after 1600, the trees were being cultivated.

So many people in Arabia enjoyed the beverage brewed from the coffee beans that the Mohammedans began to disapprove of it. Many people gathered at the coffee houses to drink coffee and discuss the affairs of the day. This was considered dangerous for the government and coffee drinking was forbidden. Nevertheless it became more popular and finally the law was withdrawn.

As the years passed and these precious berries were taken from country to country, many such difficulties arose. Physicians argued as to whether it was a healthful drink. Religious groups scorned it

and called it liquor. Italy, France, England and Germany had troubles as the people learned to like coffee. Public houses were erected where coffee was served. People thronged there and as they sipped the "friendly drink" they exchanged ideas. The houses became meeting places where all classes could go and be free to enter. Intelligent people enjoyed the orderly social life of the houses. Men who could not afford to buy the daily papers came there to read and learn the news. Famous men gathered there and others crowded about to see and hear them speak.

Gradually the drink became established in the homes. Even so, the coffee houses continued to be popular for many years before their importance as meeting places dwindled.

Today, the once rare coffee tree is so widely cultivated in most tropical countries that more coffee has been produced than could be sold at a profit. On the Brazilian plantations, the most extensive in existence, there are miles and miles of hills covered entirely with coffee trees. It is difficult to get people to work by the day when needed on these plantations and so the owners encourage families from Italy and Spain to settle there and work. Each family is given a small plot of land for household uses and the entire family works on the plantation a certain part of the time.

Thus, coffee as a beverage has spread over the world. And even though the same type of coffee is used practically everywhere, still the ways in which it is used and the customs and manners associated with it are often varied. In comparison with our modern coffee drinking the oriental customs are quaint. In some places it is almost a ceremony; the green coffee beans are roasted, ground and brewed before you as you watch and wait. In old Arabia where coffee has been known and used so long, it is even a part of business; shopkeepers serve coffee to their customers before starting to argue. In their own homes, the Arabs are noted for hospitality, the symbol of which is a drink of coffee.

MIRIAM WOOD, Guide-lecturer

Note: In Hall 25 you may see an exhibit showing the coffee branch, blossoms, berries and beans as well as pictures illustrating the production and preparation of coffee.

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FIELD MUSEUM OF NATURAL HISTORY
Roosevelt Road and Lake Michigan
CHICAGO

THE HIPPOPOTAMUSES

The present home of the Hippopotamuses is in Africa, but there was a time—long, long ago—when they lived in southern Europe, southeastern Asia and in Madagascar. Fossils found in those lands show that the early Hippopotamuses were much like those we see today.

Among the ancient Egyptians, these strange, barrel-shaped animals held an honored place. They are mentioned frequently in the early writings, and Taweret, one of the folk-goddesses sacred to Egyptian mothers, was represented in the form of a Hippopotamus. Greek literature has several myths in which the Hippopotamus is described as an animal having the peculiar habit of sweating blood. Such a statement is untrue and shows how little the writers really knew about these distant relatives of the pigs.

There are two kinds of Hippopotamuses. The River type is common, while the Forest or Pigmy type is rare being found only in a limited area of western Africa. The River Hippopotamuses are immense, clumsy animals often more than twelve feet in length and weighing, when full-grown, about four tons. Next to the elephants, they are the heaviest of mammals. The head is unlike that of any other animal. It is flat on top, the face is square with great square lips, and tiny, round, pig-like eyes are mounted on the upper surface of the head.

The River Hippopotamuses are expert swimmers and divers and can stay under water for some time. During the daytime, they play and hunt for food in the waters of pools, lakes or rivers, or on the near-by shores. When not alarmed, they make a great deal of noise. The usual sound is like the exhaust of a steam engine and is made through the nostrils. The roar is given only at night, and then only when the animals are in water.

When darkness falls, the River Hippopotamuses are apt to leave the water. Following a well-worn path, they trot and gallop rapidly and noiselessly towards the grassy areas and gardens of the vicinity. Each foot has four hoofed toes. When journeying inland, the front and hind foot of each side move in a parallel line. Thus the tracks are easily recognized. Occasionally, an animal will use the same path until it becomes two deep ruts.

Once inland, the Hippopotamuses are constantly on guard. Each new sound must be investigated. They have a great deal of curiosity. If they do not understand a noise they stand motionless with the little,

round ears twitching continually. When all is safe they proceed to the feeding areas. As each adult animal can hold about six bushels of food in its stomach at one time, a great deal of vegetable material is consumed. The natives dread the visits of these night prowlers, for the Hippopotamuses are very fond of sweet potatoes and sugar cane, two of the chief foods raised in their gardens.

The flesh of the Hippopotamus is considered a valuable food, and the fatty matter between the skin and muscles is one of the purest of animal fats. The skin, which is two inches thick in certain places, has almost no hair upon it and is especially prized for the making of whips.

The Forest or Pigmy Hippopotamus is much smaller than its water-loving cousin. It appears to be much taller, due to the fact that, in proportion to its size, the legs are longer and more slender. The eyes are placed farther to the side of the head and the nostrils are differently shaped. Like the elephant, it roams alone or in pairs, through the forests searching for its favorite foods. As it seldom uses the same path twice, it is very difficult to locate and many strange stories are told about its weird habits.

Among some of the superstitious tribes of west Africa, the "Mwe," as they call the Pigmy Hippopotamus, is greatly feared. It is thought to have power to bring misfortune upon the people. But, in reality, it is less to be feared than its huge relative. In relation to its size, its brain is larger than that of the River Hippopotamus, and it is much more sensible than the River type. It will feed after being captured and quickly responds to care and kindness and becomes tame.

Both kinds of Hippopotamuses take five years to become adults. The mothers are devoted to the young and watch them closely, becoming vicious on the approach of an enemy. In many parts of Africa, these animals are protected and no hunting is allowed. Thus, they may be kept from becoming extinct as did the earlier forms.

MARGARET M. CORNELL, Guide-lecturer

Note: In Hall J, which contains Egyptian exhibits, is a small statue of Taweret; Hall 19 has a skeleton showing the huge tusks, and Hall 15 shows an adult River Hippopotamus.

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FIELD MUSEUM OF NATURAL HISTORY
Roosevelt Road and Lake Michigan
CHICAGO

BELLA COOLA INDIANS

A small tribe of Indians, called the Bella Coolas, live in British Columbia along the southwestern coast of Canada. Formerly they were a large, prosperous group of people; they hunted and fished successfully and enjoyed their many festivals. Then diseases new to them were brought by the white people. They were not accustomed to these strange sicknesses and knew nothing of their treatments; as a result many helpless Indians died. At present there are only about three hundred of these Bella Coola Indians living. Some of their customs have changed with the coming of the white man—others remain almost the same.

As of old, the Indians spend their summers close to the coast and rivers, where salmon are abundant. These fish crowd into the streams and rivers in such numbers that they are easily caught. The men fashion nets and traps for catching the salmon. Sometimes the fish are so numerous that a man can stand on a rock in the stream or along the shore and spear the salmon as they swim past. While the men are fishing, the women split and clean hundreds of salmon. Only a small proportion can be eaten fresh; all others are hung on racks in the sunshine to cure for winter food. Another fish of importance to the Bella Coola Indians is the olachen; it is a small fish but the oil squeezed from it is prized highly by the people. They dip their food in olachen oil to make it tasty.

Since cedar wood is so plentiful in their region the Bella Coolas use it to build their houses. The large houses are usually rather long and narrow in shape. Several families may live in one house. Formerly the roof was supported in the middle and at both ends by posts carved with fantastic figures of animals and people. The figures represented certain of their ancestors, animals, birds and fish. Totem poles placed in front of the houses were painted and carved with similar designs. Some of the figures almost formed a system of picture writing. These carved house posts and totem poles are still being used by a few of the Bella Coola Indians but the custom is gradually disappearing.

In the winter the Indians spend their time hunting moose, bears, beavers, weasels and various other land animals. The skins are cleaned and those not needed for clothes are traded. The long winter

evenings are often passed by giving some of the old dances and ceremonies. Dancers garbed in fantastic masks and symbolic regalia entertain the people with their mysterious movements and weird chants. Potlatches are popular; the word potlatch means "to give" and it is used in connection with any Indian festival where there is feasting or giving away of property. The more property an Indian displays and gives away at a potlatch the greater he appears to his neighbors. A great amount of property is thus given back and forth among the Indians.

These northwest coast Indians have always had many myths and legends. They believe that spirits of all kinds live about them in the dense cedar forests; some spirits are considered helpful while others are harmful. About these mythical spirits they weave legends. Animals, birds and fish are important in their folklore. The chief bird is the raven. Masks made to imitate ravens are used by dancers, and ravens appear carved on their totem poles, house posts and ceremonial dishes. The grizzly bear, beaver and killer whale all play important roles in their myths. Some of these myths have been handed down from father to son and kept alive since earlier times.

Many Indians of the northwest coast region consider the sun as the most important deity. The Bella Coolas have always made offerings to the sun. The hunters formerly threw four small pieces of seal meat or mountain goat tallow into the fire as an offering to the sun in order to obtain success in hunting. The prayers of the Bella Coolas are directed to the sky and the sun. The Indians have the idea that when the sun wipes its face the weather will be clear and people will be happy; consequently the prayer to the deity "to wipe its face" is often made.

MIRIAM WOOD, Guide-lecturer

Note: In Hall 10 you may see Bella Coola Indian exhibits including masks, food dishes and dance regalia. In the corridor adjacent to Hall 10 are many house posts and totem poles among which are two of the Bella Coola Indians.

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FIELD MUSEUM OF NATURAL HISTORY

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FIELD MUSEUM OF NATURAL HISTORY
Roosevelt Road and Lake Michigan
CHICAGO

SNAILS OF LAND AND WATER

A little child once remarked to his mother after watching the snails in an aquarium, "Why, the snails are the fish's vacuum cleaner." He had noticed that the glass became cleaner wherever the animals had been feeding upon the tiny plants and animals living on the sides of the aquarium.

Snails belong to the group of animals which have no bones. Some of them spend their entire lives in water and die when removed; others live on land. The water snails generally breathe through gills, though a few have lungs and must come to the surface to take in fresh air. Such snails will take in enough air to last them longer than a boy could stay down under the water. The land snails breathe through lungs. The openings to these lungs are on the sides of the bodies and can be seen opening and closing in any common garden type of snail.

If you go into the garden to look for snails you will find them under leaves or rocks or hidden behind loose pieces of bark. Like their cousins, the slugs, they keep quiet during the day and feed after dark. It is absolutely necessary that they have a great deal of moisture. Should an unusually hot spell come, they seek the dampest places they can find, let out a mucous liquid which seals the openings to their shells, or else they simply draw in the foot which has a hard, horny patch on the underside. These doors prevent the moisture escaping and thus the snails rest until the temperature changes. And then, how they do eat!

For such small animals they have tremendous appetites. The scientist calls the snails "Gastropods." That means, they are animals with their stomachs in their feet. Perhaps, you have watched one as the foot contracts and expands and pulls the little fellow up the side of the aquarium. In a good light, the mouth is plainly visible on the underside of the foot. It contains teeth arranged crosswise like a saw with a larger tooth in the middle. The teeth of the garden snail are colored a yellowish-brown, just as if the little scamp had been sampling tobacco. The little round, rasping tongue is continually popping in and out.

On the top of the foot are two stalks, like fingers of a glove. When upon exploring journeys, the snail lifts these stalks and thrusts the eyes out at the top. Should danger be near, the eyes slip back into the stalks and the stalks are pulled back into their sacs. At the base

of the eye-stalks are two shorter stalks. These are the feelers for use when investigating new regions.

Snails live in spiral shells. A collection made up of forest, garden and pond shells will show many different shapes. Some will be fat and round; others will be long and slender. The spirals in some will turn to the right while others will take a left-handed twist. Wherever the snail travels, his spiral house affords him protection and shelter.

When a baby snail first comes from the egg, his shell is thin and colorless. As he grows his shell enlarges in a most interesting way. Inside the shell, attached to the inner side of the shell-opening and to the snail's back, is a skin cape or "mantle." At certain times of the year, glands near the edge of this mantle open and give out a stony substance which clings to the old lip of the shell. Bit by bit, tiny particles are added until a complete new band is visible. If any portion of the shell is injured, the break is mended with the same kind of stony liquid, but the patches will be rough and colorless. The pink, blue and brown colors are found only in shells of older snails and come from pigment cells located in the edges of the mantles.

The expression, "Crawling at a snail's pace" is frequently heard. It is true that the one, boat-shaped foot of the snail prevents his entering a running or galloping race, nevertheless, he can cover a good distance in a very short time. The foot is really the entire lower part of the body and is capable of being stretched to an amazing length when needed. Along the sides are flanges which secrete a sticky substance. This liquid helps the snail to cling to smooth surfaces and also provides material for a one-cabled bridge when the animal desires to descend quickly. In the common edible variety of snail the foot is as large as a man's hand, while the great sea snails have feet a yard or more long. All snail feet fold up and fit snugly within the shells when the animals are at rest.

In many parts of the world, snail flesh is considered a very delicious food. Some of the most famous snail farms are in France, and it is possible to purchase edible snails at many fish-dealers in our own land.

MARGARET M. CORNELL, Guide-lecturer

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FIELD MUSEUM OF NATURAL HISTORY

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FIELD MUSEUM OF NATURAL HISTORY
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THE PEARL OF THE ORIENT

About sixty miles off the southeast coast of India lies Ceylon, the most picturesque island in the world. To the Hindus, it is known as "The dew-drop on the brow of India." A more popular title is "Pearl of the Orient." This is more suitable as some of the finest pearls in the world are found in the Ceylon waters.

The island is about the size of West Virginia and consists of jungles, lowlands and mountains famed for their beauty and wealth of plant and animal life. The narrow strip of water which separates Ceylon from India bears the name "Adam's Bridge" and the highest land mass is "Adam's Peak." This lovely, blue mountain top is visible far out to sea and is considered sacred by the Buddhists. They believe it to be the mountain from which Buddha ascended into heaven, and no true Buddhist would be willing to die before making at least one pilgrimage to its top.

Most of the people are Buddhists, and have been for over 2,000 years. The country is dotted with temples and dagobas (dome-shaped structures) built over sacred relics of their great religious leader. There are also many Hindus and Mohammedans. All three groups hold sacred the hot springs of Chimpiddi at Pamkulam. These are remarkable springs, as all nine rise, close together, in an ancient stone basin, and yet no two have the same temperature.

Various types of people make their homes in Ceylon. In the lowlands of the north are the Tamils. The women wear nose-rings as well as rings on their fingers and toes. The men are said to be the fastest tree-climbers in the world. They use a rope harness which holds them securely against the trunk of the tree. In the wildest parts of the island live the Veddas, who are considered the original inhabitants. They build their houses in trees and live upon wild plants and animals.

About two-thirds of the people are Singhalese or Ceylonese. They are quiet, courteous people with delicate, refined features. It is sometimes difficult to tell the men from the women as the men wear skirts and earrings and brush their long straight hair back into a knot on the neck. Then a round comb is placed, crown-like, on the top of the head. The women are noted for their brilliant eyes, white teeth and smiles.

Ceylon is a land of giant bamboos and magnificent trees. It is a common sight to see bamboos a hundred feet high. These grasses often grow as much as a foot a day during the rainy season. Among the most interesting trees may be mentioned the flame tree, the double

coconut and the talipot palm. When the flame tree is in bloom, it looks like a torch, as the flame-colored blossoms completely hide the leaves. The double coconut, or Coco-de-Mer, grows so slowly that it produces but one leaf a year, and the nut, which may contain two or even three meaty sections, takes ten years to ripen. The talipot palm is a strange tree. When forty years of age, it produces spikes of white flowers which frequently reach up thirty-five feet. The tree is beautiful, but its beauty is short-lived. When the flowers fade the tree dies.

The sacred Pipal or Bo-tree at Anuradhapura is thought to be the oldest historical tree in existence. The original root was brought from India about 240 B.C. It has lost its heart wood and has but a remnant of its former beauty, but around it are its grandchildren and great grandchildren. This famous old fig tree is never left alone. A guard keeps constant watch, lest misfortune come to the old monarch.

Ceylon could easily be called the "Isle of Spices," so great is the quantity of cinnamon, nutmeg, mace and allspice sent out to other countries. It is also one of the great tea raising lands of the world, while thousands of acres are devoted to coconut groves, rubber plantations and rice paddies.

Everywhere are animals. In the jungles, wild elephants trumpet as they crush the tangled vines in which leopards and cobras lurk, and huge bats known as "flying foxes" hang head down from limbs of trees during the daytime. Myriads of brilliantly-colored birds fly through the dense growths. The uplands provide foods for buffalo, deer and the strange sloth-bear. It is here the white whiskered wanderoo monkeys peep at visitors from behind protective rocks. In the museum in Colombo, the capital city, is a famous mounted tortoise said to have been over two hundred years old at his death.

With its magnificent scenery, unusual plants and varied types of animals, and its deposits of sapphires, emeralds and rubies, this small island of Ceylon is one of the wonderlands of the Orient.

MARGARET M. CORNELL, Guide-lecturer

Note: The Hall of Races of Mankind has figures of the Tamil, Vedda and Singhalese; in Hall 25 may be seen the talipot palm, and Hall 17 has a case showing the sloth-bears.

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STEPHEN C. SIMMS, Director

MUSEUM STORIES FOR CHILDREN

Presented by

The James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures

FIELD MUSEUM OF NATURAL HISTORY

Series XXIII, Number 8
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FIELD MUSEUM OF NATURAL HISTORY
Roosevelt Road and Lake Michigan
CHICAGO

THE OWLS

Owls inhabit all parts of the world except for a few places in the South Seas. Twenty of the 330 species and sub-species known are found in North America. Superstitions and sayings are abundant about these birds; they are often called "wise and silent." The truth is that owls are not particularly wise; some are even stupid, but their large, immovable eyes give the appearance of wisdom.

Neither are owls always silent. Most of these birds are nocturnal, sleeping in the day and flying about at night, catching insects, mice and other rodents. It is then they give voice to hoots and eerie, uncanny calls. Perhaps it is because these birds fly at night that most people seldom see them and know of the good they do. The owls feed on insects, mice, gophers and many destructive rodents. Gradually people are learning that most of these night fliers are among the most beneficial of birds and should not be killed.

The feathers of the owl are soft and fluffy and make scarcely a whisper as the bird swoops down on an unsuspecting animal. The owl's ears are so sensitive that it can hear the slightest squeak of a mouse. The large eyes can detect the faintest shadow or light. Even in sunlight most owls can see perfectly. These birds have eyelashes. Besides the two eyelids there is also a third lid or membrane which closes from the inner corner of the eye like a shutter. This membrane is transparent and protects the eye from direct sunlight; at the same time it permits the owl to see any movement or shadow. The eyes are absolutely immovable and if the owl watches a moving object it must turn its head. The head will turn until the owl stares straight behind.

When the owl catches a bird or animal it swallows it whole – feathers, skin, bones and all. Later the bird spits up the feathers or fur and bones in a little ball or pellet.

Owls vary in size from the Great Horned Owl, almost two feet in length, to the tiny Elf Owl, not much larger than an English Sparrow. One of the commonest owls in this region is the small Screech Owl. It often lives in old orchards close to streams where it enjoys a nightly bath in the cool water. Most people are familiar with the wailing tremolo of this owl but seldom see it as it pursues its prey at night. It is a good mouse-eater.

The one owl that is not beneficial is the Great Horned Owl. It is the dread of poultry farmers because it carries away chickens, turkeys and other fowls even larger than itself. In spite of its bad habits the strength, courage and skill of the ferocious bird are admirable. It is practically untameable, with a sullen, morose disposition. As you see it winging its way powerfully across the horizon you easily realize why it has been called the "tiger of the air." The mother Horned Owl lays her eggs as early as February or March. In zero weather and through blizzards she courageously remains on the nest of eggs even though she herself is covered with snow and half frozen. Just a few minutes' desertion and the eggs would freeze.

The Barn Owl is usually known as the "monkey-faced owl." Its face is heart-shaped and even the young ones have monkey-like faces. If disturbed, these little ones present a fearful appearance as they sway back and forth and hiss loudly. The call of the adult Barn Owl is more like a snore. This owl is one of the most beneficial, feeding largely on mice and insects.

Of all the owls the most gloriously beautiful is the Snowy Owl. Pure white ones are unusually beautiful; the soft, fluffy plumage gives the appearance of new-fallen snow. White ones of this type are rare and are always males. The females are much larger than the males and have flecks of brown or black in their feathers. This great Snowy Owl belongs in the far north where summer brings continuous daylight and the owl hunts in the light as well as the dark. It lives in the open country and has eyes better than any human. Silently it perches on a hummock of ground with its great yellow and black eyes staring in the distance. It destroys countless mice and lemmings but does not kill birds other than English Sparrows. The Eskimo hunters are fond of its white meat which they say tastes like chicken. In the winter a few of these handsome birds come south into our states for food. Their picturesque beauty is a welcome addition to our winter scenery.

Owls are most certainly worthy of our protection and attention.

MIRIAM WOOD, Guide-lecturer

Note: Hall 21 has a very fine exhibit of owls including eleven found in this region.

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FIELD MUSEUM OF NATURAL HISTORY
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CHICAGO

SKIS AND SNOWSHOES

In these days of airplane fleets and streamline trains, we are apt to forget that skis and snowshoes helped greatly in the opening up of our own northern lands; also, that thousands of people still have to depend upon them in regions where the ground is covered with soft snow during many months of the year.

How the first ski was made, or when, is not known. The earliest form of which there is any record was a rough, bark-covered board which was hurriedly attached to the foot just as you might fasten a piece of wood to your shoe to keep you from sinking into the mud when crossing a swampy place.

No doubt the first skis were used only in emergencies. Then, as time passed, men discovered that the crude foot devices could be of assistance for general wear during the snow months. With their use, more frequent trips could be made to the hunting grounds and distant trading centers visited more often for needed supplies. Bit by bit they improved the shape and thickness of the skis. The broad, short boards gave way to longer, narrower skis with the thickest part directly under the foot and the forepart turned up at the front. Much time was spent in trying out different kinds of woods and finishes, and it was discovered that certain kinds of curves resulted in speedier skis.

Sometimes, a skier does not wish to travel rapidly or has burdens to carry. So two types of "wooden skates" have come into use. For fast going, without loads, a smooth ski is best. This type is made either perfectly smooth underneath or it has grooves which act as do the keels or counterboards on boats. For slower going, the compound ski is more practical. It is lined with animal skin and is used when heavy loads must be transported or when climbing hills and mountains.

The Scandinavian peoples are experts in the use of skis. In Norway, a young man prizes his skis above all other personal possessions. Some are beautifully ornamented, while others may be sharply pointed and turned up at both ends. At Osterdalen, it is not unusual to see a man using a long, smooth ski on the left foot and a short, fur-lined ski on the right foot. In this way he is equipped for either fast or slow going. When he wishes to travel rapidly, he keeps the right foot off the ground most of the time. Norwegians learn to ski when very young and always prefer skiing to other sports. Even their old myths honor skis. Many a legend depicts a hero covering great distances with the aid of cleverly constructed magic skis.

In Lapland, the reindeer herders round up their animals with the assistance of long, narrow wooden skis, while over in Iceland bone skis are used. These are made of bones of oxen and horses. After the bones have been shaved down to fit the feet, small holes are drilled in the toe and heel rims. Through these holes are drawn sinew cords which are crossed and fastened about the ankles of the wearer. Such skis are very different from the scientifically constructed skis used in the contests held annually at Cary, but they serve the purpose for which they are needed.

Snowshoes are sometimes called "webbed skis." They are made of various materials and shapes according to the regions and the uses. They are much broader than skis and the space between the surrounding rims is covered with webbing. Primitive snowshoes have been found in Japan, Korea, the Caucasus Mountains and in northern Asia and America. The earliest forms are very simple when compared with the snowshoes used by the fur-trappers and Indians of Canada. The finest snowshoes have been developed in our own land, where they have been used by the army, the explorers, the engineers and the hunters.

Modern snowshoes are somewhat like tennis rackets, with very close meshes which are made of rawhide, except in the far north. The Eskimos use sealskin webbing. Often, the Indian snowshoes are shaped like babies' shoes and are decorated with beads. Snowshoes are especially suited to the soft moccasins of the Indians and the pliable sealskin boots of the Eskimos. Persons accustomed to wearing them can walk as rapidly upon the snow as they can without them upon the ground. The Hudson Bay trappers have often covered a hundred miles a day, walking and running behind their dog sleds.

Snowshoes have interesting names in various countries. Usually the name explains some feature of the shoe. In Norway, snowshoes are used by both men and horses and are called "trugers," while to the Sioux Indians they are "Let-lu."

MARGARET M. CORNELL, Guide-lecturer

Note: Snowshoes are found in many of the halls devoted to Indian and Eskimo exhibits. At the east end of Hall 4 is an Indian ski.

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